**IN THE CLAIMS**

**Claim 1 (Amended):**

1. An optical cable, substantially without a central strength member, the optical cable comprising:

at least one multi-fiber unit tube dimensioned to receive a plurality of optical fibers, the unit tube being substantially circular and having an inner diameter (D), wherein the modulus of the at least one multi-fiber unit tube is less than 70,000 psi;

a stacked plurality of optical fiber ribbons positioned within the multi-fiber unit tube, the stacked plurality of optical fiber ribbons having a diagonal length (d),

wherein the ratio of the diagonal length (d) of the stacked plurality of optical fiber ribbons to the inner diameter (D) of the multi-fiber unit tube is at least 0.90; and

a filling material disposed between the stacked plurality of optical fiber ribbons and the multi-fiber unit tube.

**Claim 2 (Original):**

2. The apparatus as recited in claim 1, wherein the diagonal length (d) of the stacked plurality of optical fiber ribbons is approximately equal to the inner diameter (D) of the multi-fiber unit tube.

**Claim 3 (Original):**

3. The apparatus as recited in claim 1, wherein the filling material is selected from the group consisting of at least one yarn and nonwoven tape.

**Claim 4 (Original):**

4. The apparatus as recited in claim 1, wherein the filling material includes water-swellable super absorbent powder (SAP).

**Claim 5 (Amended):**

5. The apparatus as recited in claim 1, wherein at least one of the multi-fiber unit tubes [has a modulus less than 70,000 psi and] is made from a material selected from the group consisting of low-density polyethylene (LDPE), linear low-density polyethylene (LLDPE), ultra-low-density polyethylene, highly plasticized polyvinylchloride (PVC), extrudable thermoplastic elastomers, ethylene/vinyl acetate copolymers, ethylene/acrylic acid copolymers and flexible polyolefin-based elastomers.

**Claim 6 (Original):**

6. The apparatus as recited in claim 1, wherein the filling material further comprises a hydrophobic, thixotropic gel.

**Claim 7 (Original):**

7. The apparatus as recited in claim 1, wherein the stacked plurality of optical fiber ribbons further comprises an array of optical fibers selected from the group consisting of a 3 x 4 array, a 12 x 12 array, a 6 x 8 array, a 4 x 12 array, a 9 x 8 array, a 6 x 12 array and a 8 x 12 array.

**Claim 8 (Original):**

8. The apparatus as recited in claim 1, further comprising at least one protective jacket formed around the at least one multi-fiber unit tube.

**Claim 9 (Original):**

9. The apparatus as recited in claim 8, wherein the protective jacket is made of a material selected from the group consisting of high-density polyethylene (HDPE), medium-density polyethylene (MDPE), linear low-density polyethylene (LLDPE), polyvinylchloride (PVC), polyamides, and low-smoke zero-halogen filled polyolefins.

**Claim 10 (Original):**

10. The apparatus as recited in claim 1, wherein the at least one multi-fiber unit tube further comprises a plurality of multi-fiber unit tubes stranded together in a SZ configuration.

**Claim 11 (Amended):**

11. An optical cable, substantially without a central strength member, the optical cable, comprising:

at least one multi-fiber unit tube dimensioned to receive a plurality of optical fibers therein, the at least one multi-fiber unit tube having a shape and a modulus less than 70,000 psi;

a plurality of optical fibers positioned within the multi-fiber unit tube;

wherein at least one of the plurality of optical fibers positioned within the multi-fiber unit tubes further comprises a stacked plurality of optical fiber ribbons; and

a filling material disposed between the plurality of optical fibers and the multi-fiber unit tube, wherein the filling material maintains the shape of the multi-fiber unit tube.

**Claim 12 (Original):**

12. The apparatus as recited in claim 11, wherein the filling material is selected from the group consisting of at least one yarn and nonwoven tape.

**Claim 13 (Original):**

13. The apparatus as recited in claim 11, wherein the filling material includes water-swellable super absorbent powder (SAP).

**Claim 14 (Original):**

14. The apparatus as recited in claim 11, wherein the multi-fiber unit tube has an inner diameter (D), wherein the stacked plurality of optical fiber ribbons has a diagonal length (d), and wherein the ratio of the diagonal length of the

stacked plurality of optical fiber ribbons (d) to the inner diameter of the multi-fiber unit tube (D) is at least 0.90.

**Claim 15 (Original):**

15. The apparatus as recited in claim 11, wherein the multi-fiber unit tube has an inner diameter (D), wherein the stacked plurality of optical fiber ribbons has a diagonal length (d), and wherein the inner diameter of the multi-fiber unit tube is approximately equal to the diagonal length of the stacked plurality of optical fiber ribbons.

**Claim 16 (Amended):**

16. The apparatus as recited in claim 11, wherein at least one of the multi-fiber unit tubes [has a modulus less than 70,000 psi and] is made from a material selected from the group consisting of low-density polyethylene (LDPE), linear low-density polyethylene (LLDPE), ultra-low-density polyethylene, highly plasticized polyvinyl chloride (PVC), extrudable thermoplastic elastomers, ethylene/vinyl acetate copolymers, ethylene/acrylic acid copolymers and flexible polyolefin-based elastomers.

**Claim 17 (Original):**

17. The apparatus as recited in claim 11, wherein the filling material further comprises a hydrophobic, thixotropic gel.

**Claim 18 (Original):**

18. The apparatus as recited in claim 11, wherein the at least one multi-fiber unit tube further comprises a plurality of multi-fiber unit tubes stranded together in a SZ configuration.

**Claim 19 (Original):**

19. The apparatus as recited in claim 11, further comprising at least one protective jacket formed around the at least one multi-fiber unit tube.

**Claim 20 (Original):**

20. The apparatus as recited in claim 19, wherein the protective jacket is made of a material selected from the group consisting of high-density polyethylene (HDPE), medium-density polyethylene (MDPE), linear low-density polyethylene (LLDPE), polyvinylchloride (PVC), polyamides, and low-smoke zero-halogen filled polyolefins.

**Claim 21 (Original):**

21. The system as recited in claim 19, wherein the optical cable further comprises at least one strength member formed in the protective jacket.

**Claim 22 (Amended):**

22. An optical waveguide system for transmitting optical information, comprising:

at least one source of optical energy;

an optical cable coupled to the source for transmitting optical energy from the source; and

a receiver coupled to the optical cable for receiving optical energy from the source,

wherein the optical cable is configured substantially without a central strength member, and wherein the optical cable further comprises

at least one multi-fiber unit tube having therein a plurality of optical fibers, the unit tube being substantially circular and having an inner diameter (D) and a modulus less than 70,000 psi,

a stacked plurality of optical fiber ribbons having a diagonal length (d) and positioned within the multi-fiber unit tube,

wherein the ratio of the diagonal length of the stacked plurality of optical fiber ribbons (d) to the inner diameter of the multi-fiber unit tube (D) is at least 0.90, and

a filling material disposed between the plurality of optical fibers and the multi-fiber unit tube.

**Claim 23 (Original):**

23. The system as recited in claim 22, wherein the filling material is selected from the group consisting of at least one yarn and nonwoven tape.

**Claim 24 (Original):**

24. The system as recited in claim 22, wherein the filling material is disposed between the plurality of optical fibers and the multi-fiber unit tube in such a way that maintains the shape of the multi-fiber unit tube.

**Claim 25 (Amended):**

25. The system as recited in claim 22, wherein at least one of the multi-fiber unit tubes [has a modulus less than 70,000 psi and] is made from a material selected from the group consisting of low-density polyethylene (LDPE), linear low-density polyethylene (LLDPE), ultra-low-density polyethylene, highly plasticized polyvinyl chloride (PVC), extrudable thermoplastic elastomers, ethylene/vinyl acetate copolymers, ethylene/acrylic acid copolymers and flexible polyolefin-based elastomers.

**Claim 26 (Original):**

26. The system as recited in claim 22, wherein the filling material further comprises a hydrophobic, thixotropic gel.

**Claim 27 (Original):**

27. The system as recited in claim 22, wherein the optical cable further comprises at least one protective jacket formed around the at least one multi-fiber unit tube.

**Claim 28 (Original):**

28. The system as recited in claim 27, wherein the protective jacket is made of a material selected from the group consisting of high-density polyethylene (HDPE), medium-density polyethylene (MDPE), linear low-density polyethylene (LLDPE), polyvinylchloride (PVC), polyamides, and low-smoke zero-halogen filled polyolefins.